

A surprising discovery at Desroches - 29.04.2013

Island Conservation Society (ICS) staff Tony Jupiter and Shanone Adeline have made an unexpected and exciting find at Desroches Island -- a coconut crab or robber crab (sipay in Creole).



Normally seen only in the southern atolls of the Farquhar and Aldabra groups, this is the world's largest terrestrial crab with powerful pincers capable of stripping the fibre from coconuts. This comes shortly after the discovery that in recent times the island has been colonised by Seychelles skinks.

There are very few historical records of coconut crabs on the islands of the Amirantes or granitic islands. However, in recent years ICS staff have twice discovered this species at Aride and there has even been at least one report from Mahé. Together with the latest discovery at Desroches, this pattern of sporadic sightings from islands with no established population suggests that sipay may have been common throughout Seychelles prior to the arrival of people. Not only are coconut crabs large and easily captured, they are also long lived and slow growing – taking at least 10 years to reach adulthood. These characteristics make it easy to exterminate them where they are heavily hunted.

Coconut crabs mate on land. The female glues her eggs to the underside of her abdomen and carries them for several months. At the time of hatching, she releases the eggs into the ocean, usually at dusk on the high tide. The empty egg cases remain on the female's body after the larvae have been released but nothing is wasted and the female eats the cases within a few days. The larvae float in the ocean with other plankton for three to four weeks, many of them eaten by predators. Later they moult and settle on the bottom, eventually returning to land where they live like hermit crabs, changing their shells as they grow. Eventually, they outgrow shells and develop a hardened abdomen. They reach sexual maturity at five to 12 years after hatching but do not achieve maximum size until 40 to 60 years of age. A fully grown male sipay can have a claw-span of up to one metre and has no enemies other than humans.

In 1981, the coconut crab was listed on the IUCN Red List as Vulnerable, but a lack of biological data caused its assessment to be amended to Data Deficient in 1996. The listing has not been updated since. Given its appearance by natural means on Desroches, there may be a case to introduce more animals and try to establish a breeding population in the Amirantes. However, there are difficulties, including the fact that eggs are laid in the open ocean so a breeding population at Desroches may not be self-sustaining. Even so, this may be a contribution to the wider conservation of the species in the Indian Ocean following its disappearance due to human exploitation not just from much of Seychelles but also Mauritius and Madagascar.

The English common name of robber crab comes from their ability to exploit coconuts. To do this, they strip the husk, always starting from the three germination holes on top of the nut. Once the pores are revealed, the crab will attack one of them until it breaks. Then it uses its smaller pincers to extract the coconut flesh. The main pincers of big crabs can even break the nut into smaller pieces for easier

consumption. However, they are by no means restricted to a coconut diet and will eat practically everything available to them, including fruit, vegetation, tortoise and turtle eggs and even other crabs.

Rodents treat adult sipay with a healthy respect and they have been seen to kill and eat Polynesian rats. Their wide diet may even solve one of the 20th century's most enduring mysteries. The legendary pilot Amelia Earhart disappeared on July 2, 1937 during an attempt to fly around the world at the equator. Books, films and documentaries about her disappearance abound, besides much speculation about her fate. One of many theories was that she was a spy captured by the Japanese and died in a prisoner-of-war camp. Others thought she actually survived and returned to live out her life as an anonymous housewife. Now researchers believe she crashed at Nikumaroro island (Kiribati) in the Pacific where a number of artefacts have been found. These include a partial skeleton, but most of the bones have vanished. It seems likely Amelia Earhart's body was consumed by coconut crabs and her bones may be distributed among the numerous crab burrows on the island.

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